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# Ag in the Classroom

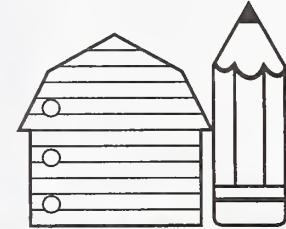
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# Notes

A bi-monthly newsletter for the Agriculture in the Classroom Program. Sponsored by the U.S. Dept. of Agriculture to help students understand the important role of agriculture in the United States economy. For information, contact the AITC Director, Room 4307, South Bldg., USDA, Washington, D.C. 20250-0991. 202/720-7925.

United States  
Department of  
Agriculture



JULY/AUG. 97  
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## Ohio Children Take a Field Trip "From Past to Present"

Head Start children learned to milk a goat. Nearby, fifth graders exercised their creative thinking skills as they brainstormed about ways farm families might have used corn husks in the past. Another group of children tried their hand at transforming sisal into rope. It was all part of an Ag in the Classroom "field trip from past to present" organized by the Pickaway, Ohio, Farm Bureau.

The event was organized by Connie Angles, a teacher's aide and board member of the Pickaway County Farm Bureau. She says the idea for Agriculture Week came one day when she was talking with students in her class. "I asked the kids, 'How many have parents who farm?' No hands went up. I asked, 'How many have grandparents who farm?' No hands went up. It makes you realize they're getting far removed from farming."

More 3700 children from Pickaway County Schools received a close-up view of where their food and fiber originate. Each group of 15 to 30 students made six or seven stops chosen from over 120 displays and hands-on exhibits.

Items on display ranged from antiques to the largest harvesting equipment on the market today. Children were fascinated by the farm animals, since some had never seen a turkey that wasn't dressed for the Thanksgiving table. Others enjoyed looking at the tools and crafts, while others explored career opportunities in agriculture.

There was plenty of emphasis on safety, too. Because many children are moving to rural Pickaway County from metropolitan areas, they are often unaware that farm animals and farm machinery must be treated with respect.

Planning for the event started more than 14 months before it took place. All the county's elementary schools were invited to participate. The fairgrounds were also open one night for parents and other interested citizens to visit. Angles advises that such an event will be most successful if teachers are involved in planning "from day one." It's also important to choose a time of year when farmers are available — more than 100 volunteers shared their time at the Piscataway event. Reaching out to community groups is a good way to ensure media coverage.



## From the Director:

Another successful national conference is behind us. The New England area in July exceeded our high expectations as a conference site. The 1998 conference is scheduled to return to the Washington, DC area (possibly in nearby Virginia or Maryland). The final decision on date and location is yet to be made.

This issue of the newsletter spotlights the 1997 closing speaker of the conference, Janet Grey from Florida. Janet's story is truly inspirational. This issue also reverts to our regular format, with a Book Corner and Ag on the Internet segments.

With the conclusion of my contract at USDA, my term as Director of Ag in the Classroom is coming to an end. It has been a pleasure to serve and represent you and the Ag in the Classroom program. I hope that our paths will cross again in the future and wish you great success in reaching students with factual information about the agricultural system that provides us with such bounty. It is my hope that one day every child in every classroom will understand and appreciate American agriculture.

*Elizabeth A. Holanyk*

## Environmental Stewardship Materials Seek Common Ground

When Arthur Conan Doyle wrote *The Hound of the Baskervilles*, he painted a picture of wetlands that was held by most of his contemporaries: "Rank weeds and lush, slimy water plants send an odor of decay and a heavy miasmatic vapor into our faces, while a false step plunged us more than once thigh-deep into the dark, quivering mire, which shook for yards in soft undulations around our feet."

Today, wetlands are known to provide many benefits to humans. There are about 300 million acres of wetlands remaining today in the United States, and deciding what to do with these resources has resulted in controversies at the local, state, and national level.

As today's youth become tomorrow's leaders, they will increasingly be forced to deal with the issue of how communities can balance the need for economic growth while at the same time maintaining a healthy environment. To help them develop the skills they will need to critically evaluate options and make sound decisions, the National 4-H Council has developed the Environmental Stewardship program.

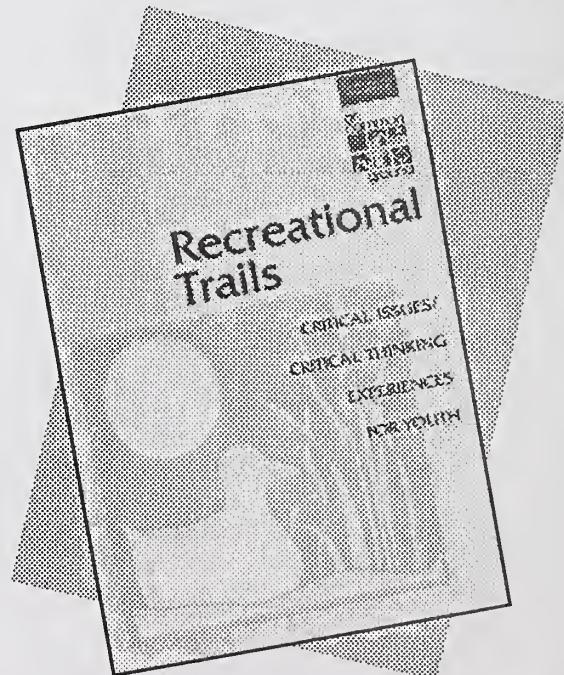
The goals of the program include helping youth:

- understand ecological concepts
- build awareness of environmental issues and values

- develop scientific investigatory and critical thinking skills
- learn skills needed for effective action. Each component of the Environmental Stewardship program features hands-on, developmentally appropriate activities designed to build critical thinking and leadership skills. Each area of the program encourages youth to develop their capacity to plan and to take effective, well-reasoned action. In addition, each piece encourages young people to take an active role in their communities.

*Continued on page 7*

**New materials by the National 4-H Council help youth practice collaborative decision making as they deal with environmental and land use issues.**



# Spotlight

## Florida Teacher Uses Her Life Experiences to Reach At-Risk Students

Each September, Janet Gray, a teacher at Turie T. Small Elementary School in Daytona Beach, Florida, is assigned to teach a class of fourth and fifth graders who are seen as potential dropouts. She's known throughout the community as an expert on reaching these difficult students. But, she explains, "I don't have a degree in exceptional student education. I have a life in that."

A high school dropout, Janet didn't earn a diploma until she was 35. Her son's first grade teacher encouraged her to earn a General Equivalency Degree. She followed up with a teaching degree at age 41 and she's been helping at-risk children ever since.

Hands-on agricultural activities have helped her excite and motivate children. From growing peanuts to raising and showing steers and heifers, Gray's students have learned many lessons about our food and fiber system. More importantly, they've learned lessons about their own talents and abilities.

"I can't" are words she doesn't allow her students to say. Each September, children arrive in her classroom to find a large paper tombstone on each desk. On it, they write all the things they *can't* do. Then, wearing black T-shirts, they go outside and bury their "I can't" messages.

Clearly, her positive attitude is contagious. When children come to Janet Gray's classroom, their absenteeism stops. Their behavior improves. And their test scores go up.

One year during African American History Month, Gray taught students about George Washington Carver. Then she asked what they knew about peanuts. The answer was – not much. So she and her students planted a peanut crop outside their portable classroom.

The next year, with the help of a business partner, the children planted five acres of peanuts. Each child had the responsibility for two long rows of peanuts. To finish their work in the garden, students arrived early and stayed late.

After harvesting and roasting the peanuts, the students made peanut brittle, which they sold throughout the county. The more than \$6000 profit helped students see the value and importance of hard work and business skills. It also helped expand the children's horizons – some of the money was used to charter a bus so the children could visit their business partner in Georgia. Most important, as students' attendance rate soared, so did their scores on standardized tests.

Gray's first class of students are now seniors. They're still in school. And they still come back to visit her. The seeds of hope she planted many years ago continue to bear fruit as her students, once designated potential dropouts, find success in school and in life.



Janet Gray shared her story at the 1997

Ag in the Classroom National Conference.



## Cris Peterson's New Book Harnesses Horsepower

A century ago, draft horses clip-clopped on nearly every street and dusty road in America. From their enormous strength came the term "horsepower." As author Cris Peterson explains in her new book, *Horsepower: The Wonder of Draft Horses*: "Before there were cars or trucks, horses pulled carriages full of people and wagons full of milk. Before there were tractors or combines, horses pulled plows through spring sod and corn pickers through fall fields. Some twenty-seven million draft horses were America's main source of power."

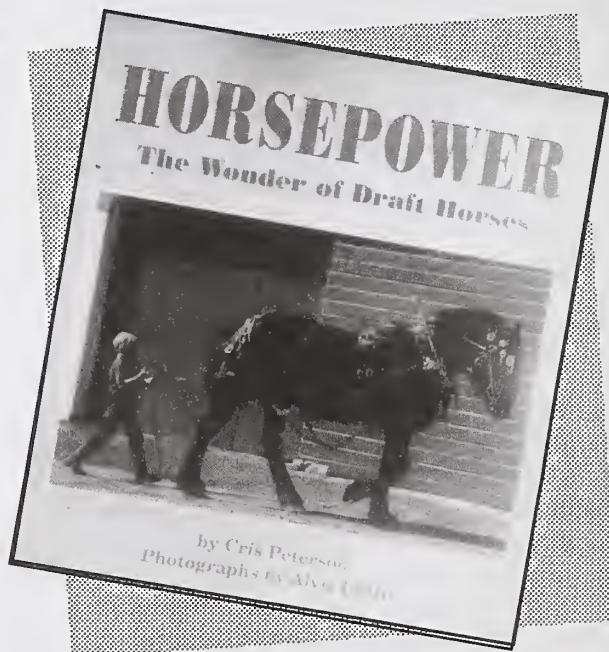
Today, there are many fewer horses at work in American agriculture. But, as Peterson says, "there are still some farms where you can hear the jingling of harnesses and the soft nicker of draft horses." Those farms are brought to life in *Horsepower*.

The book highlights three breeds of draft horses – Percherons, Belgians, and Clydesdales – and the families who care for and work with them. Designed especially for readers aged four to eight, *Horsepower* includes many interesting nuggets of information. For example, Percherons are descended from the huge medieval warhorses that carried armored knights. One "horsepower" is the amount of force necessary to raise a weight of 250 pounds from a hole 220 feet deep in one minute.

*Horsepower*, like Peterson's other books *Harvest Year* and *Extra Cheese, Please!*, is enriched by Alvis Upitis's beautiful full-color photographs. He captures horses at work and rest and includes pictures of a Clydesdale's feathery legs, a one-horse open sleigh, and a plow hitched to a dozen Belgian horses.

"It's important for children and adults to appreciate the incredible abundance and diversity of American agriculture," Peterson says. She and her family are dairy farmers living in Grantsburg, Wisconsin.

*Horsepower* is available at bookstores or from Boyds Mill Press, 815 Church Street, Honesdale, PA 18431. Single copies are \$15.95. The ISBN number is 1-56397-626-9.



*Cris Peterson's new book celebrates the work horses that made such an important contribution to American agricultural history and continue to do so today, although in far fewer numbers.*

## High Tech Farming On Video

What do satellites have to do with soybeans?

What do cows have to do with computers? Plenty, according to *Tech Watch*, a new video produced by Minnesota Ag in the Classroom.

"High tech is everywhere these days," says the narrator of *Tech Watch*. To prove the point, five teenage reporters visit farms and agricultural processing facilities throughout Minnesota. From computerized herd management on a dairy farm to a ethanol fuel made from corn, the video shows the high-tech nature of agriculture. *Tech Watch* offers glimpses of some of the amazing ways science and technology have teamed up with agriculture to help make American food and fiber production efficient, effective, and environmentally responsible.

There are more than 10,000 dairy farms in Minnesota, and many of them are using technology for everything from record keeping to herd management. On a modern dairy farm, for example, cattle wear computerized collars that make it easy to track milk production. Other modern technology – this time, solar energy panels – make it possible for dairy barns to be heated or cooled as the weather demands.

High tech is a part of the plant world, too. Viewers learn how agronomists apply genetic science to biological systems to produce a variety of corn that is resistant to the European corn borer.

"Our goal is to make sure the yield ends up in the farmer's bin and isn't eaten by insects," a plant scientist says.

Computers linked to satellites are helping farmers increase yield through a technique known as "precision farming." First, the farmer takes soil samples from a variety of locations in a field. Then an agronomist analyzes the samples to create a profile of exactly what's needed – from seed to fertilizer to herbicide – at each spot in the field. Finally, a satellite receiver on the farm machinery allows for a precise application of the proper agricultural "inputs." When the crop is harvested, farmers can create a yield map that will allow them to make better planning decisions in future years.

Technology may also reduce pollution. Vegetable oil – primarily from soybeans – is now being made into biodiesel fuel. It runs cleaner and reduces emissions.

A final segment of the video shows a farmer engaged in sustainable agriculture. Viewers see how these techniques can be environmentally beneficial and profitable at the same time.

*Tech Watch*, 37 minutes in length, is designed for secondary students, but with support and adaptation may work for upper elementary and middle school youth. The Biotechnology section contains language that is quite technical, but other sections work well for younger students. Minnesota teachers can receive a free copy by writing a request on school letterhead. Out-of-state orders are \$25. To order, contact Minnesota Ag in the Classroom at M-AITC, 90 West Plato Boulevard, St. Paul, MN 55107 or call 612-296-6688.



# INTERNET

## Ag on the Internet National Gardening Association Offers Grants, Growing Ideas for Teachers

Teachers who want to incorporate garden activities into their classroom should check out the web site of the National Gardening Association(NGA). The site includes lesson plans, information on how to grow plants in classrooms, and a variety of other interesting and useful information.

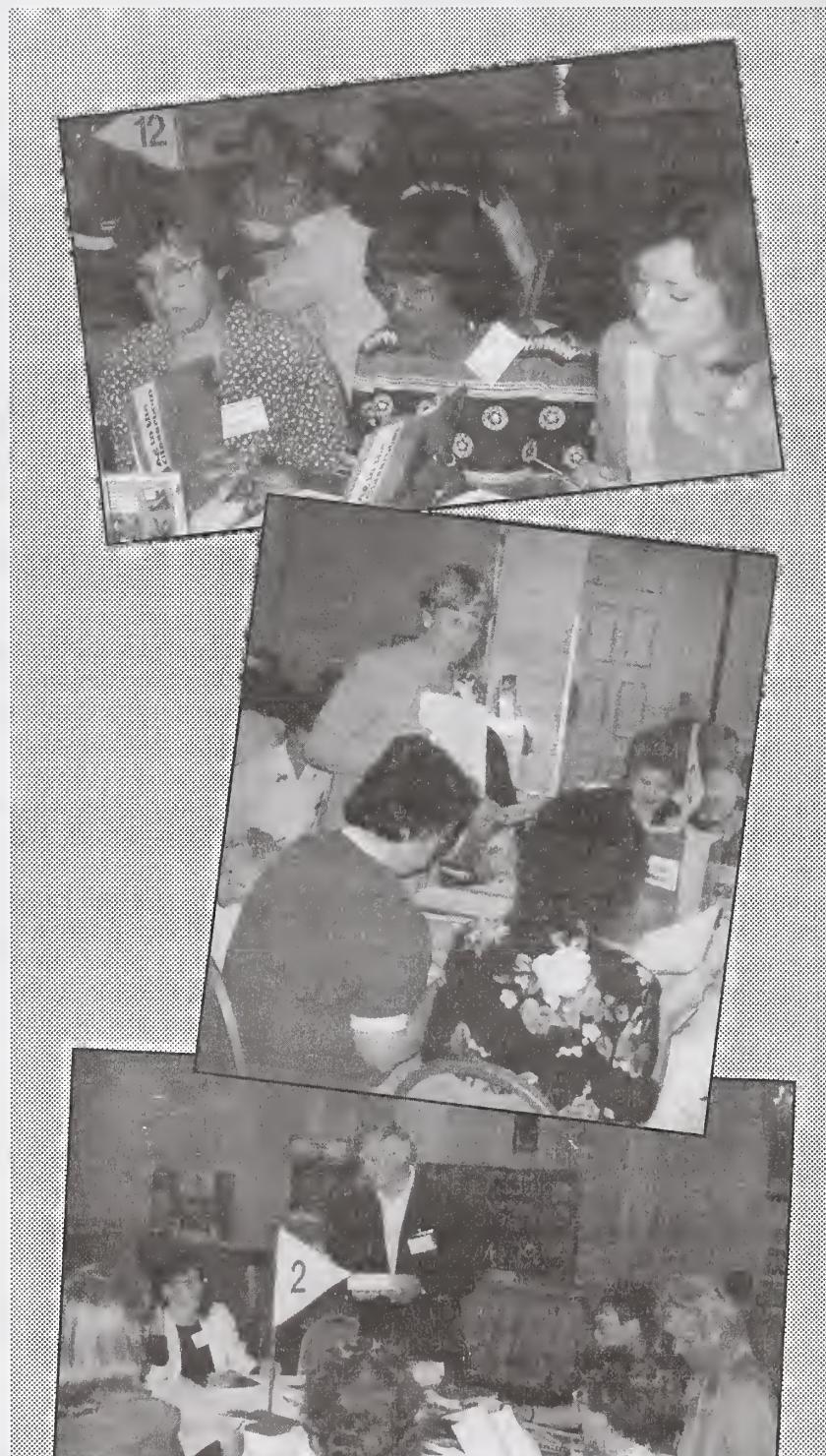
For example, one article encourages teachers to help students learn to "read" their plants: "By encouraging your class to carefully observe plants and consider their needs (while also sharing some of your horticultural hints), you can help your students become cultivators of thriving gardens and better problem solvers to boot."

The web site also offers an index to past issues of NGA's magazine. So a student doing a science project on growing tomatoes, for example, could have access to articles on the subject. Contact NGA at [www.garden.org](http://www.garden.org).

The web site also includes an application for NGA's annual gardening grant program. Each year, 300 grants worth more than \$700 provide schools and youth programs nationwide with quality tools, seeds, plants, and garden products.

Gardening programs involving at least 15 children between the ages of three and 18 are eligible. Special consideration is given for educational, social, or environmental programming; sustainability; community support; strong leadership; need, and innovation.

Those without access to the Internet can receive an application by writing to Garden Grants Dept. PS, National Gardening Association, 180 Flynn Ave., Burlington, VT 05401. Call (800) 538-7476.



**Scenes from the 1997 Conference**

## Environmental Stewardship from page 2

The "On Common Ground" materials present youth aged 12 to 14 with information on critical environmental issues about land use: water quality, recreational trails, wetlands, and endangered species. Each includes a four-color poster and a handbook that provides lessons that allow youth to engage in critical thinking and decision making.

In the Wetlands materials, youth are asked to role-play a town meeting that has been called to decide whether to move a town after the latest flooding of a local, large river. Many of the area residents are farmers who would then sell their farms to the government to be converted back to wetlands. In the Water Quality materials, they act as a town council called to make a zoning decision about whether to allow development on the shores of a local lake.

Other materials in the series include *Collaborations In Action: Three Case Studies on Land Use Issues*, a self-study program to help people learn the skills they need to make collaborative problem solving a reality. *To Build a Trail* discusses trail management from design to construction to maintenance, and includes a video and a step-by-step reference book. *Finding Your Way Through the Information Maze* guides research on environmental issues and includes computer software and an easy-to-use resource guide. The *Emergency Kit* is designed to help deal with an immediate issue or crisis, focusing on collaborative methods for problem solving.

A *Building Common Ground Kit* is available for workshop leaders interested in bringing diverse groups together. It includes videos of real groups dealing with real land situations. Building Common Ground workshops are also available.

Throughout the "On Common Ground" materials, youth are encouraged to address these complex and controversial issues through reasoned discussion and debate. Then they are encouraged to take what they have learned into the community, working with others to address environmental concerns.

For more information on the "On Common Ground" materials, contact the National 4-H Council, On Common Ground, 7100 Connecticut Avenue NW, Chevy Chase, MD 20815; (301) 961-2904.



## Ag in the Classroom---State Contacts

The individuals listed here are key reference persons in each state. If you have any questions, want to make reports, or need more information about your state's Ag in the Classroom program, contact the following:

**Alabama**  
Ms. Jane Alice Lee  
2101 Bell Road  
Montgomery, AL 36117  
334-240-7124  
334-272-2611 (h)

**Ms. Brenda Summerlin**  
Dept of Ag & Industries  
PO Box 3336  
Montgomery, AL 36193  
334-240-7124

**Alaska**  
Mr. Ted Berry  
Alaska AITC  
P.O. Box 62  
Willow, AK 99688-0062  
907-495-1018

**Mike Carlson**  
Box 953  
Delta Junction, AK 99737  
907 895-4819 (H)

**Arizona**  
Arizona Farm Bureau  
3401 East Elwood Street  
Phoenix, AZ 85040-1625  
602-470-0088

**Monica Pastor**  
Chair, Arizona AITC Task Force  
4001 E. Broadway #B-9  
Phoenix, AZ 85040  
602-437-1330

**Arkansas**  
Dr. Larry R. Dale  
ASU Center for Economic  
Education  
P.O. Box 2890  
State Univ., AR 72467-2890  
501-972-3810

**California**  
Mr. Mark Linder  
CA Foundation for AITC  
1601 Exposition Blvd FB 16  
Sacramento, CA 95815  
916-924-4380

**Colorado**  
Ms. Helen Davis  
Colorado Dept of Agriculture  
700 Kipling St. #4000  
Lakewood, CO 80215-5894  
303-239-4114

**Ms. Bette Blinde**  
Colorado Foundation for Agriculture  
6004 West County Rd. 68C  
Red Feather Lake, CO 80545  
970-686-7806

**Connecticut**  
Bernardine Kavan  
510 Pidgeon Hill Rd.  
Windsor, CT 06095  
860-683-1922

**Dr. Alfred Mannebach**  
University of Connecticut  
249 Glenbrook Rd  
Storrs, CT 06269-2093  
203-486-0246

**Delaware**  
Ms. Anne T. Fitzgerald  
Delaware AITC  
Delaware Dept. of Ag.  
2320 S. DuPont Highway  
Dover, DE 19901  
302-739-4811 Ext. 273

**District of Columbia**  
Ms. Barbara Evans  
UDC/ICES (Room 309)  
901 Newton St., N.E.  
Washington, D.C. 20017  
(202) 274-6936  
(202) 274-6903

**Florida**  
Ms. Doty Wenzel  
545 E. Tennessee  
Room 206 Black Building  
Tallahassee, FL 32308  
904-487-4973

**Georgia**  
Ms. Donna Reynolds  
Georgia Farm Bureau  
PO Box 7068  
Macon, GA 31298  
912-474-8411

**Hawaii**  
Mr. Michael Barros  
2530 10th Avenue  
Bldg. A, Room 23  
Honolulu, HI 96816  
808-733-9125

**Idaho**  
Mr. Rick Waitley, Director  
Waitley Associates  
1741 Gibson Way  
Meridian, ID 83642  
208-888-0988

**Illinois**  
Linda Henderson  
Illinois Farm Bureau  
Field Services Division  
1701 Towanda Ave  
Bloomington, IL 61702-2901  
309-557-3334

**Indiana**  
Ms. Pam Bright  
Office of Commission  
150 West Market, Suite 414  
Indianapolis, IN 46024  
317-232-8769

**Colorado**  
Mr. Harry L. Pearson  
Indiana Farm Bureau  
PO. Box 1290  
Indianapolis, IN 46206  
317-692-7851

**Iowa**  
Ms. Barbara Lykins  
Iowa Farm Bureau Federation  
5400 University Avenue  
West Des Moines, IA 50266-5997  
515-225-5425

**Kansas**  
Ms. Sandra Kramer  
124 Belmont Hall  
Kansas State University  
Manhattan, KS 66506  
913-532-7946

**Kentucky**  
Ms. Fay Lowe  
Kentucky Farm Bureau  
9201 Bunsen Pkwy  
Louisville, KY 40250-0700  
502-495-5000

**Louisiana**  
Ms. Rayetta Boone  
Department of Agriculture  
500 Mero St., 7th Floor  
Frankfort, KY 40602  
502-564-4696

**Maine**  
Neil Piper  
Maine Ag in the Classroom  
26 Rice Street  
Presque Isle, ME 04769  
207-784-0193

**Maryland**  
Steven A. Connally  
Maryland Agricultural Education  
Foundation, Inc.  
2101 East Fort Avenue - Suite 124  
Baltimore, MD 21230  
410-752-0671  
410-783-0857 FAX

**Massachusetts**  
Deborah C. Hogan  
c/o P.O. Box 1171  
Lakeville, MA 02347  
508-336-4426

**Michigan**  
Dr. Eddie Moore  
410 Agriculture Hall  
Michigan State University  
East Lansing, MI 48824  
517-355-6580

**Minnesota**  
Mr. Alan Withers  
MND Department of Agriculture  
90 W Plaza Blvd  
St Paul, MN 55107  
612-296-6688

**Mississippi**  
Clara Bilbo  
Mississippi Ag in the Classroom  
MS Farm Bureau  
P.O. Box 1972  
Jackson, MS 39215-1972  
601-977-4824

**Missouri**  
Ms. Diane Olson  
Missouri Farm Bureau  
PO Box 658  
Jefferson City, MO 65102  
573-893-1400

**Montana**  
Margie Thompson  
Agriculture in Montana Schools  
Rural Route  
Wolf Creek, MT 59648  
406-562-3562

**Nebraska**  
Ms. Ellen Hellerich  
NE Farm Bureau Federation  
PO Box 80299  
Lincoln, NE 68501  
402-421-4400 ext 2002

**Nevada**  
Ben Damonte  
1300 Marietta Way  
Sparks, NV 89431  
702-853-6464

**Nevada**  
Dorothy Hammond  
Hot Springs Ranch  
Star Rt.  
Golconda, NV 89414  
702-529-0440

**New Hampshire**  
Mrs. Lynda Danos  
2144 Highway 1  
Raceland, LA 70394  
504-448-2395

**New Jersey**  
Ms. Joni Elliot  
NJ Dept. of Agriculture  
CN330  
Trenton, NJ 08625  
609-292-8897 or 633-7463

**New Mexico**  
Ms. Jennifer Hopper  
NM Farm & Livestock Bureau  
421 N. Water  
Las Cruces, NM 88001  
505-526-5521

**New York**  
Andrew Fagan  
New York AITC  
408 Kennedy Hall  
Cornell University  
Ithaca, NY 14853-5901  
607-255-8122

**North Carolina**  
Ms. Louise Lamm  
NC Farm Bureau  
PO Box 27766  
Raleigh, NC 27611  
919-783-4319

**North Dakota**  
Ms. Sarah Nordby  
ND Dept. of Agriculture  
HC 1, Box 9  
Almond, ND 58620  
701-879-6376

**Ohio**  
Ms. Judy Roush  
Ohio Ag Awareness Council  
PO Box 479  
Columbus, OH 43216-0479  
614-249-2429

**Oklahoma**  
Dr. Charles Cox  
205 Poultry Science  
Oklahoma State University  
Stillwater, OK 74078  
405-744-5390  
405-744-6525

**Oklahoma**  
Ms. Jo Theimer  
Oklahoma Dept. of Agriculture  
2800 No. Lincoln Bldg  
Oklahoma City, OK 73105-4298  
405-521-3864  
FAX 405-521-4912

**Oregon**  
Ms. Dona Coon  
Oregon Ag in the Classroom  
1200 NW Front Ave., (Suite 520)  
Portland, OR 97209-2800  
541-758-7063

**Pennsylvania**  
Ms. Pat Suck  
534 Kennedy Road  
Arrville, PA 17302  
717-862-3486

**Rhode Island**  
Mr. Tyler Young  
RI Ag in the Classroom  
6 Simmons Road  
Little Compton, RI 02837  
401-624-4107

**South Carolina**  
Robbie Myers  
SC Ag in the Classroom  
4913 College Lake Drive  
Florence, SC 29506  
803-665-1361 (H)  
803-796-6700 (W)

**South Dakota**  
Ms. Melanie Schumacher  
SD Ag in the Classroom  
P.O. Box 577  
Pierre, SD 57501  
605-945-2306

**Tennessee**  
Charles Curtis  
Tennessee Farm Bureau  
P.O. Box 313  
Columbia, TN 38402-0313  
615-388-7872

**Texas**  
Mr. Tad Duncan  
Texas Farm Bureau  
PO Box 2689  
Waco, TX 76702-2689  
817-772-3030

**Utah**  
Ms. Debra Spielmeyer  
UT State University  
UMC 2315  
Logan, UT 84322-2315  
801-797-1657

**Vermont**  
Ms. Megan Camp  
Shelburne Farms  
Shelburne, VT 05482  
802-985-8686

**Virgin Islands**  
Mr. Eric Bough  
Dept. of Economic Development  
& Agriculture  
St. Croix, VI 00850  
809-778-0991

**Guam**  
Resident Instruction Coordinator  
College of Ag & Life Sciences  
University of Guam  
Mangilao, Guam 96923  
671-735-2009  
Fax 671-734-6842

**Micronesia**  
Dr. Ruben Dayrit  
CTAS/College of Micronesia  
Kolonia, Pohnpei  
FSM 96941  
691-320-2738

**Puerto Rico**  
Mr. Dave Heilig  
USDA/SCS  
Caribbean Area State Office  
GPO Box 4868  
San Juan, PR 00936  
809-498-5206

**Virgin Islands**  
Mr. Otis Hicks  
PO Box 804  
Christianstad  
St. Croix, VI 00821-0804  
809-773-0758

## Ag in the Classroom Notes

Room 4307, South Bldg.  
U.S. Department of Agriculture  
Washington, D.C. 20250-0991

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